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# UK Patent Application (19) GB (11) 2 279 375 (13) A

(43) Date of A Publication 04.01.1985

(21) Application No 9313560.6

(22) Date of Filing 01.07.1983

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(51) INT CL<sup>6</sup>

E04F 13/08 21/18

(52) UK CL (Edition N)

E1D DLEKMNV D2029 D2121 D2130 D2136 D401

(56) Documents Cited

GB 2221932 A EP 0544604 A1 EP 0206559 A2  
US 4712309 A US 4233752 A US 4135338 A

(58) Field of Search

UK CL (Edition L) E1D DLEKMNV DLEKMNW  
DLEKMSV DLEKMSW  
INT CL<sup>5</sup> E04F

### (54) Tile fixing framework

(57) A tile fixing framework consists of plastic strips having slots across their width on the upper 2. and lower 3 surfaces, to allow the strips to clip together, at right angles. The raised portions 1 provide the correct lateral spacing. The base 4 will rest against the work surface and provide a platform for the tile to rest upon. When the framework is assembled it will be relatively rigid in one plane thus keeping all tiles parallel; and slightly flexible in another so the framework can adjust to uneven work surfaces.

FIG. 3

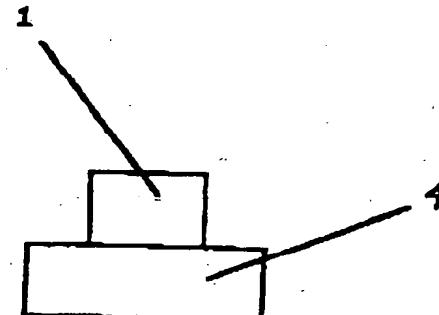
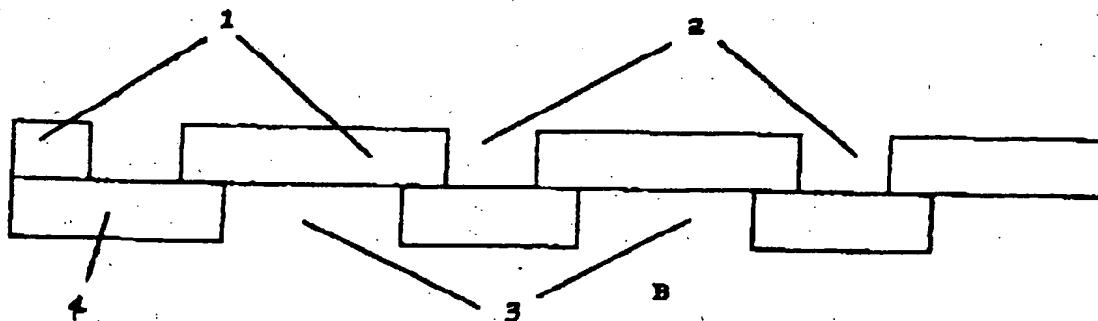


FIG. 2



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## Patents Act 1977

Examiner's report to the Comptroller under  
Section 17 (The Search Report)

-6-

Application number

GB 9313560.6

## Relevant Technical fields

- (i) UK CI (Edition 1)      E1D (DLEKMNV, DLEKMSV, DLEKMNW,  
                                  DLEKMSW)
- (ii) Int CI (Edition 5)      E04F

## Search Examiner

D J LOVELL

## Databases (see over)

- (i) UK Patent Office
- (ii)

## Date of Search

17 SEPTEMBER 1993

## Documents considered relevant following a search in respect of claims

1-5

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
A	GB 2221932 A (PENGELLEY)	1
A	EP 0544604 A1 (TOKIKAWA)	1
A	EP 0206559 A2 (RES)	1
A	US 4712309 (KINGSTON)	1
X	US 4233792 (MALAVASI)	1-5
X	US 4135338 (MALAVASI)	1-5

Category	Identity of document and relevant passages	Relevancy to claims

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E1D DLEKMNV D2029 D2121 D2130 D2134 D401

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GB 2221932 A EP 0544604 A1 EP 0206559 A2  
 US 4712309 A US 4233782 A US 4135338 A

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 INT CL<sup>5</sup> E04F

## (54) Tile fixing framework

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FIG 3

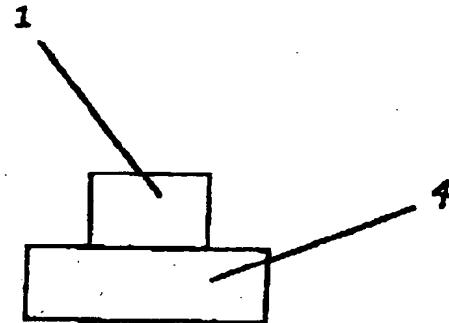
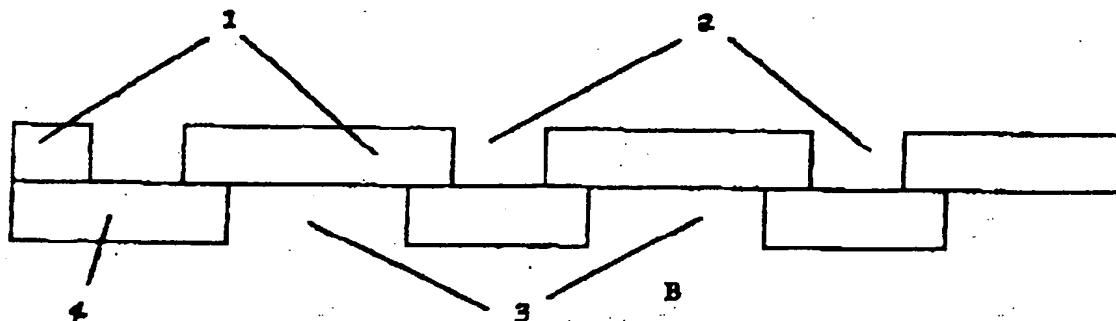


FIG 2



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## TILE FIXING FRAMEWORK

**This invention relates to a tile fixing framework.**

The fixing of tiles has been performed for many years both by the professional and the D.I.Y. enthusiast and both experience difficulty providing all the tiles to have the same depth, uniform spacing and alignment.

According to my invention there is provided a plastic strip with slots across its length, both front and back, to provide a means of attachment at right angles. The clipping together of many plastic strips will provide a framework for the fixing of tiles. The plastic strip has a 'T' shaped cross section that will be inverted so the top of the 'T' will rest onto the work surface. The shape of the plastic strip will provide tile spaces and tile support.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-

**Figure 1 shows a side view of a portion of the plastic strip.**

**Figure 2 shows a birds eye view of figure 1.**

**Figure 3 shows a cross section of figure 1.**

**Figure 4 shows two portions of the plastic strip as in figure 1, clipped together.**

Referring to the drawings of the plastic strip shown in figures 1,2,3 and 4, comprise of, a raised portion 1 that will act as a tile spacer, upper slot 2 and bottom slot 3 that provide the means of attachment, base plate 4 that provides support for the tile.

## 2

## TILE FIXING FRAMEWORK

This invention relates to a tile fixing framework.

The fixing of tiles has been performed for many years both by the professional and the D.I.Y. enthusiast and both experience difficulty providing all the tiles to have the same depth, uniform spacing and alignment.

The closest apparatus to my invention is, what is known to people in the trade as a 'TILE SPACER'. A small crossed shaped '+' piece of plastic, it is positioned where the four corners of four tiles meet. The tile provides correct spacing when the spacers are used. Tile spacers are small and awkward to work with, often move, sink or protrude. The tile spacer gives little or no provision for tile alignment and has no means of controlling the depth of the tiles.

According to my invention there is provided a compartment for the provision of one or two tiles. A framework of many compartments joined together can be attached to the work surface. Each compartment will be rigid by way of its vertical and horizontal, thus ensuring alignment and that all tiles are parallel. The compartment / framework shall have slight flexibility forwards and backwards so it can adjust to uneven work surfaces.

Each compartment shall have a raised portion, fully or partly along its border. This raised portion will ensure all tiles are correctly spaced. This spacer shall be below the height of the tile to allow 'GROUTING' to take place.

Each compartment shall have a back support, either situated at the corners, around its border or across its length or its breadth. The back support will ensure all tiles are at the same depth thus preventing the tiles from sinking or raising.

**Although the 'tile fixing framework' could be made from a variety of materials it is preferred that a type of plastic be used.**

**The tile fixing framework could be made complete as one unit or individual components to build the framework, but it is preferred it is provided in lengths thus giving the vertical and horizontal requirements to build a framework.**

**The framework may be fixed onto the work surface by having attachment for pins, nails etc. or a form of glue; but it is preferred that an adhesive strip or pieces be provided.**

**Each compartment shall have a raised portion that acts as a spacer, this raised portion may be the full length or small nodules around the border. It is preferred that the raised portions are situated around the border except where provisions are made for the attachment of different size compartments.**

**Each compartment shall have a back support for the tiles to rest upon, this can be located at the corners, the middle of each of the four borders, or across its length and / or breadth. It is preferred that the support runs the complete border of each compartment except where provisions are made for the attachment of different size compartments.**

**The benefits of my preferred features are :**

- It will be simple to construct a framework with compartments capable to accommodate any size of tile.**
- Attachment to the work surface requires no tools.**
- Long strips of plastic that are light, easy to store and manufacture.**
- Each strip provides all that is required for good tiling to take place; spaces, alignment within its rigidity and support for correct depth.**

The preference of my invention is to have strips of plastic with slots across its width both underneath and on the top. These slots will be at selected distances so all size compartments / frameworks can be constructed. These slots are a means of attachment for the compartment / framework to be constructed.

The strips of plastic shall have a crossed section shape of an upside down letter 'T'. The raised portion shall be no higher than the height of a tile and will provide spacing. The long flat portion's underside will be attached to the work surface and its upper side will provide the platform to accommodate the tile.

Figure 6 shows the approximate size of a 'TILE SPACER', A.

Figure 7 shows an enlarged 'TILE SPACER' situated at the corners of four tiles, B.

The invention will now be described with reference to the accompanying drawings in which;

Figure 1 shows a side view of a portion of the plastic strip used to make the framework, showing top slots 2, tile support 4, tile spacer 1 and bottom slots 3.

Figure 2 shows a top view of figure 1 showing, tile support 4 and tile spacer 1.

Figure 3 shows a cross section of figure 1 showing, tile support 4 and tile spacer 1.

Figure 4 shows two sections of the plastic strip when slotted together, using top slot 2 and bottom slot 3. The dotted lines and shaded area represent the section lying on top.

Figure 5 shows a complete framework assembled by many plastic strips, containing ten compartments for the allocation of ten or twenty tiles.

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## CLAIMS

1. The tile fixing framework will be constructed from strips of plastic with slots across its width both underneath and on top. These slots will be at selected distance so all size compartments / frameworks can be constructed. The slots are a means of attachment for the compartment / framework to be constructed.
2. The tile fixing framework as claimed in claim 1, when assembled shall be rigid by way of its vertical and horizontal, thus ensuring all tiles are parallel, and have a slight flexibility forwards and backwards so it can adjust to uneven work surfaces.
3. The plastic strip as claimed in claim 1 shall have a raised portion that will act as tile spacer, that will be less than the height of the tile so grouting can take place.
4. The plastic strip as claimed in claim 3 shall provide tile support on the upper surface of the base that rests onto the work surface. The tile support will ensure all tiles are of the same depth.
5. The tile fixing framework substantially as described herein with reference to figures 1 - 4 of the accompanying drawing.

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FIG 1  
FIG 3

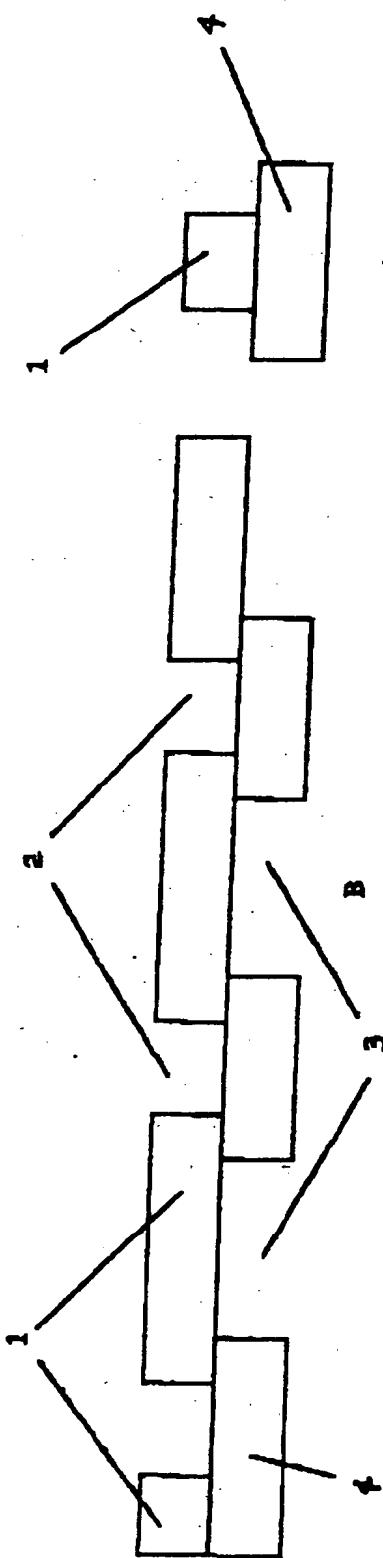
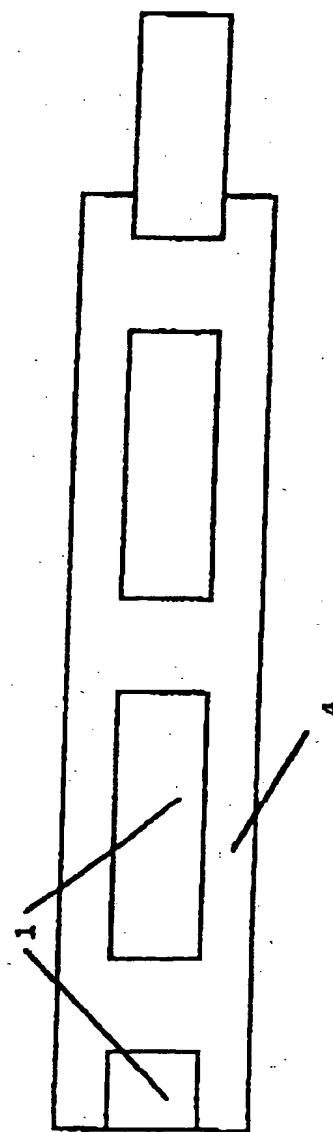


FIG 2



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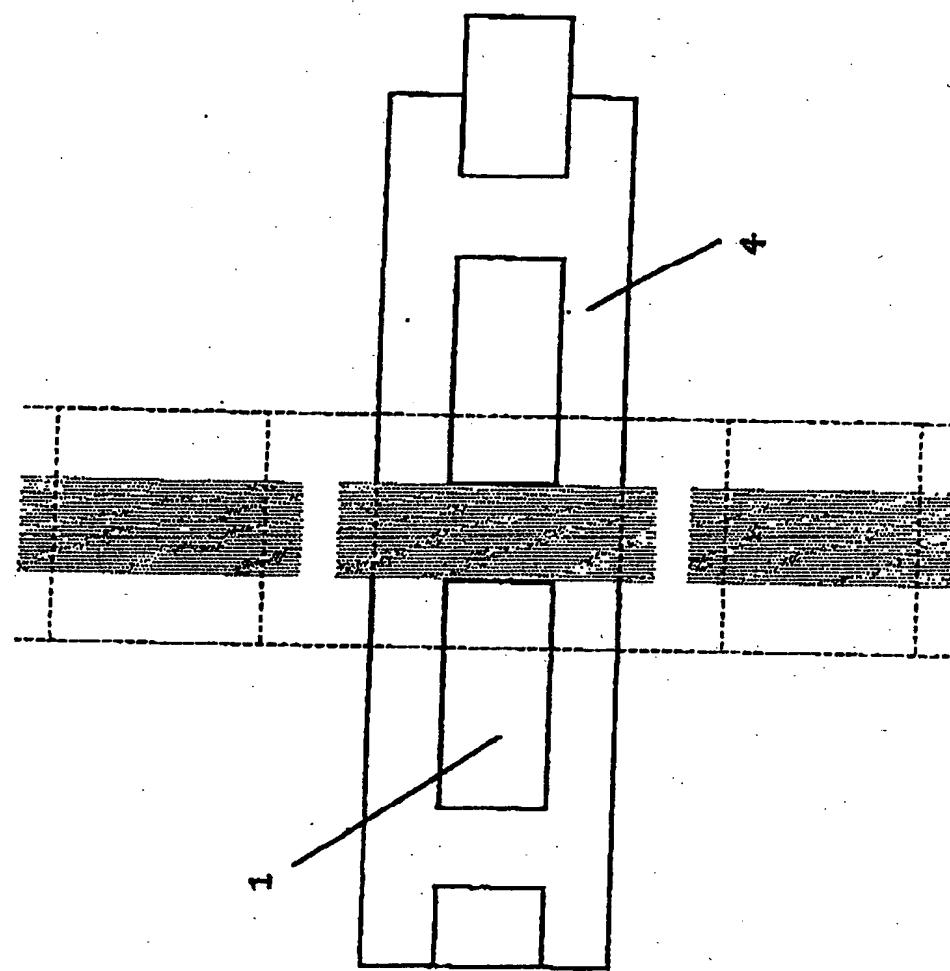
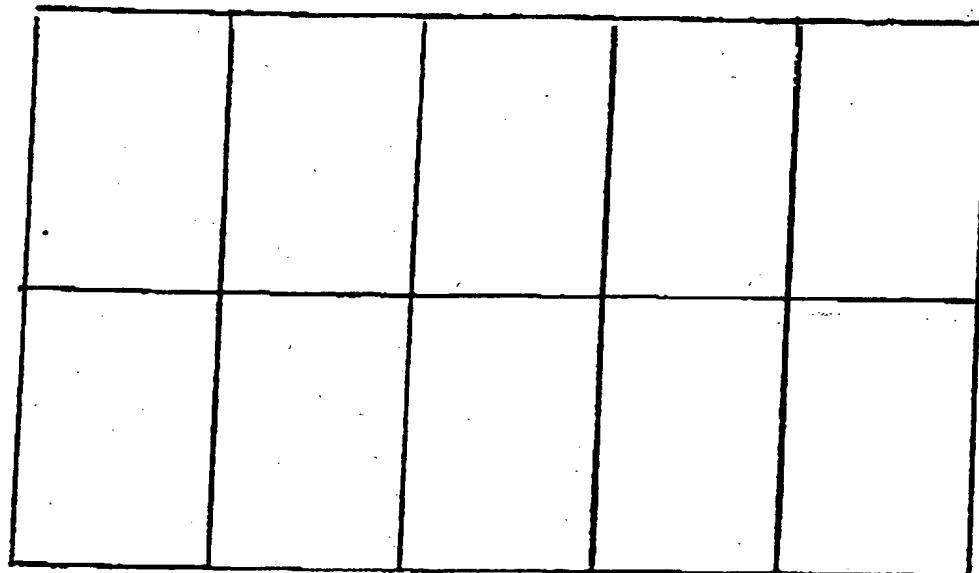


FIG 4

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FIG 5



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FIG 6

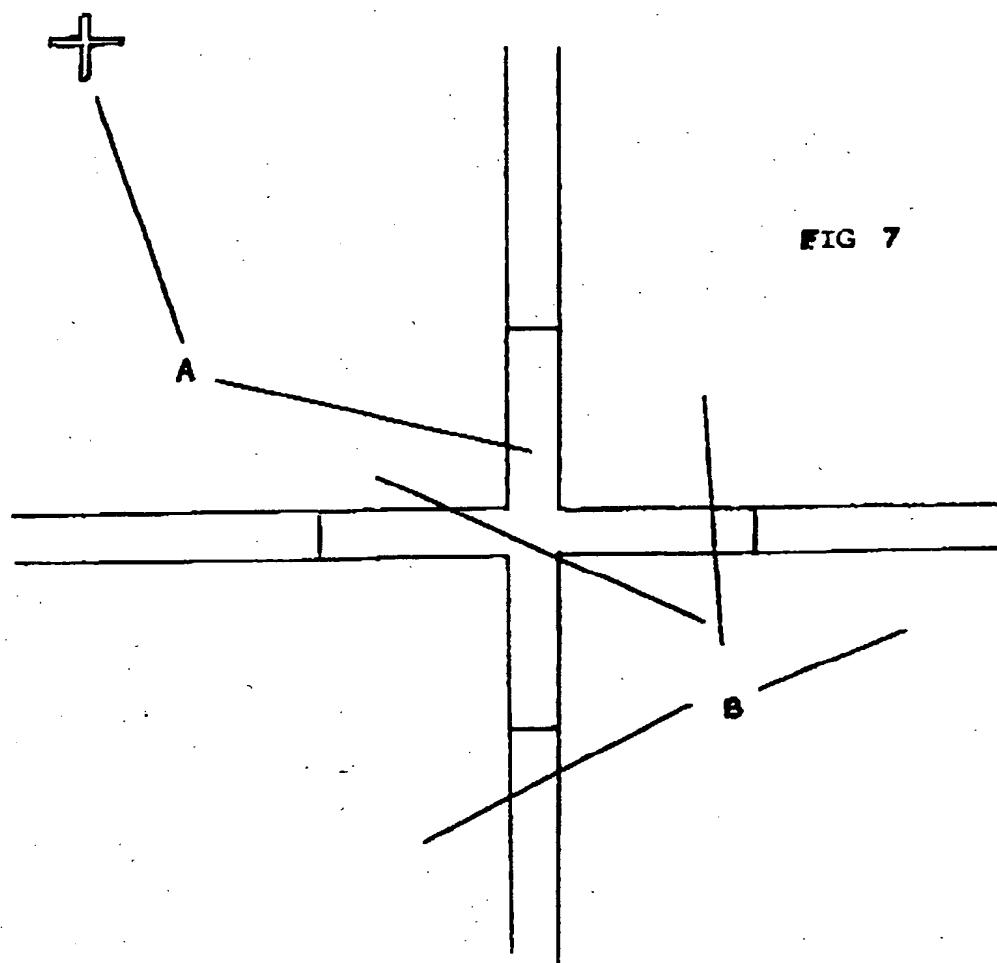


FIG 7